

THE USE OF ALCOHOL AND
THE LIFE INSURANCE
RISK.

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REPRINTED FROM

THE

MEDICAL RECORD

December 2, 1911.

WILLIAM WOOD & COMPANY

NEW YORK

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ASSISTANT MEDICAL REFEREE THE MANUFACTURERS' LIFE ASSURANCE COMPANY.

THERE is no subject with which the medical referee has to deal that involves so much trouble and uncertainty as that connected with the drinking habits of the applicant. For many reasons it is impossible to get the truth even from applicants whose statements can be received with confidence in all other respects.

It is not my purpose to contend that the strictly moderate user of alcoholic beverages is to any appreciable extent a less desirable risk than a total abstainer. A man may drink a glass or two of wine or beer a day without rendering him a less desirable risk than a total abstainer. But we cannot deny that an abstainer is less likely to become later an immoderate user than one who habitually uses alcoholic drinks in moderation. He is less exposed to the temptations of the club, the barroom, and the sideboard, and there is less danger of him contracting vicious habits. We know how difficult it is to draw the line between moderation and excess. We are all familiar with the man who prides himself on his moderation, and would be much hurt at

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the suggestion that his daily consumption exceeds half a dozen or more drinks a day. He does not like the limits of safety, and yet is in the habit of taking to be questioned as to the exact number of drinks he takes, and if the examiner is conscientious and tries to get accurate information it is resented, and the applicant is apt to carry the business to another company. Bitter complaints follow from the agent and the examiner is likely to be supplanted by some one less likely to give offense. The applicant is usually unknown to the examiner, and even the ablest examiner cannot always distinguish moderate from immoderate drinkers. Thus it comes about that every company carries risks in large numbers on men who habitually or occasionally drink to excess.

We mentally classify risks according to drinking habits something after this scheme: (a) Total abstainers. (b) Strictly moderate drinkers. (c) Those claiming or believing themselves to be moderate drinkers, who, nevertheless, use alcohol in such amounts as to render themselves less desirable as risks than classes (a) and (b). (d) Immoderate drinkers.

In my opinion the only safe way to deal with immoderate drinkers is to reject them. If we attempt to meet the danger by giving short term endowments and imposing liens, our experience will not be satisfactory for the reason that as a rule only the bad ones will accept such policies while the less undesirable will refuse to accept them. No matter what care we take, a large number who properly are graded in class (c) will get on our books. We can hope to keep down the number only by maintaining a high standard in our agents and medical examiners and by securing reports on habits from reliable and

disinterested sources. But if there is to be any classification of the assured along this line, the only practicable one is into abstainers and non-abstainers. If the life expectancy of the average abstainer is higher than that of the average drinker who does not drink in such amounts as to make him uninsurable, it is surely only just that abstainers should be separately classified so that they may enjoy a lower rate on non-participating policies and share in the greater profits accruing upon the lives of the abstainers in the participating class.

THE USE OF ALCOHOL AND THE LIFE INSURANCE RISK.

In the year 1840 a certain Robert Warner—a member of the Society of Friends and a total abstainer—applied for a policy on his life. The directors of the company to which he applied would grant him a policy only on the condition that he paid 10 per cent. more than the ordinary premium, because they looked upon him “as thin and watery and as mentally cranked in that he repudiated the good creatures of God as found in alcoholic drinks.” He refused to accept the policy thus loaded, and he and his friends banded themselves together and founded what is now known as the United Kingdom Temperance and General Provident Institution. Warner took the first policy and died at the ripe age of eighty-two years. This was the first company formed to insure the lives of total abstainers. The business at first restricted to abstainers was in 1848 extended to non-abstainers in a separate section. The above table shows their mortality experience under ordinary whole life policies for the forty-five years, 1866 to 1910, in 5-year periods.

The following are the percentages of actual to expected losses both as to number and amount :

MORTALITY EXPERIENCE UNDER ORDINARY WHOLE LIFE POLICIES, 1866-1910, 45 YEARS IN 5-YEAR PERIODS.

Years.	TEMPERANCE SECTION.			GENERAL SECTION.				
	Expected Claims.		Actual Claims.	Expected Claims.		Actual Claims.		
	Number	Amount.		Number.	Amount.			
1866-70.....	549	£100,446	411	£ 72,676	1,008	£196,352	944	£230,297
1871-75.....	723	139,819	511	97,773	1,266	257,450	1,330	255,062
1876-80.....	933	193,748	651	126,142	1,485	311,326	1,480	322,644
1881-85.....	1,179	268,272	835	168,003	1,670	367,214	1,530	327,100
1886-90.....	1,472	359,061	1,015	259,114	1,846	249,046	1,750	388,913
1891-95.....	1,686	430,211	1,203	278,815	1,958	476,558	1,953	462,201
1896-00.....	1,900	505,332	1,402	370,374	2,058	535,686	1,863	477,145
1901-05.....	2,021	574,144	1,456	378,487	2,221	613,207	1,961	522,820
1906-10.....	2,291	739,414	1,504	441,838	2,282	681,932	1,900	544,946
Total, 45 years.....	12,754	£3,310,447	8,988	£2,193,222	15,794	£93,868,771	14,711	£3,531,128
£1 equals \$4.86		\$16,088,772		\$10,659,059		\$18,802,227		\$17,161,282

Years.	Section and Percentage of Number		Section and Percentage of Amount	
	Temperance.	General.	Temperance.	General.
1866-70.....	74.86	93.65	72.35	117.28
1871-75.....	70.68	102.60	69.9	99.07
1876-80.....	69.77	99.73	65.10	103.63
1881-85.....	70.82	91.61	62.62	89.07
1886-90.....	68.95	94.79	72.08	90.64
1891-95.....	71.35	99.74	64.81	96.98
1896-00.....	73.79	90.52	73.29	86.07
1901-05.....	72.04	88.29	65.92	85.26
1906-10.....	65.21	83.26	59.75	79.91
Average.....	70.47	93.14	66.25	91.27

It will thus be seen that during the forty-five years from 1866 to 1910, inclusive, the number of expected claims from deaths was 12,754 in the temperance section and 15,794 in the general section, while the actual number of deaths was 8,988 in the temperance section and 14,711 in the general section. In other words, the percentage of actual to expected deaths in the temperance section was 70.47, while in the general section it was 93.14. The ratio of actual to expected losses as to amount was 66.25 per cent. in the temperance section and 91.27 per cent. in the general section. The mortality saving in the temperance section was therefore 3,766 lives during the forty years. In the general section with larger business it was only 1,083 lives. If the loss ratio had been as high in the temperance section as it was in the general section the mortality saving would have been only 875 lives instead of 3,766 lives. If the loss ratio in the general section had been as low as in the temperance section the mortality saving would have been 4,664 lives instead of only 1,083 lives.

The total saving from death losses being lower

than the mortality tables called for was 4,849 lives in the two sections. With the same loss rate in both sections that was experienced in the general section, the mortality saving would have been only 1,958 lives. On the other hand it would have been 8,615 lives if the loss rate had been the same in both sections that it was in the temperance section. The ratio of mortality saving was on the average of 4.3 times as great in the temperance section as in the general section. In the forty-five years with a mortality in the whole business such as was experienced in the general section the total savings would have been only \$3,045,495, but with a mortality in the whole business such as was experienced in the temperance section the savings would have been \$11,775,465. The total actual mortality saving in the whole business was \$7,070,658. The shortage in the general section on account of its less favorable mortality was \$11,775,465 — \$7,070,658 = \$4,704,807.

Age.	Years of Life Under Observation.	Deaths "Expected" Under the Table of the Institute of Actuaries.	Actual Deaths.	Ratio of Actual to "Expected" Deaths.
10 to 24.....	14,116	87.7	34	38.8
25 to 34.....	46,500	352.3	131	37.2
35 to 44.....	39,645	398.2	134	33.7
45 to 54.....	20,561	311.0	142	45.7
55 to 64.....	6,966	189.9	106	55.8
65 to 87.....	1,752	112.8	82	72.7
Total.....	129,540	1,451.9	629	43.3

The Abstainers & General Insurance Company, of Birmingham, Eng., published the preceding table

compiled by its actuary with its annual report for 1910. It covers the period of twenty-seven years (1884-1910).

The Sceptre Life Association published the following table with its latest annual report :

Period.	GENERAL SECTION.			ABSTAINERS' SECTION.		
	Ex-pected Deaths	Actual Deaths	Per Cent.	Ex-pected Deaths	Actual Deaths	Per Cent.
5 yrs., 1884-1888..	466	368	79.00	195	110	56.41
5 yrs., 1889-1893..	564	466	82.62	312	184	58.97
5 yrs., 1894-1898..	628	498	79.30	419	228	54.42
5 yrs., 1899-1903..	712	548	76.97	514	270	52.53
5 yrs., 1904-1908..	709	573	80.82	607	294	48.43
2 yrs., 1909-1910..	273	221	80.95	264	128	48.48
Total, 27 yrs...	3,352	2,674	79.77	2,311	1,214	52.53

The latest published experience of the Scottish Temperance Life, covering the period of twenty-five years (1883-1907), is as follows :

Period.	ABSTAINERS' SECTION			GENERAL SECTION.		
	Ex-pected Claims	Actual Claims	Ratio, Per Cent.	Ex-pected Claims	Actual Claims	Ratio, Per Cent.
1883 to 1887.....	43	15	35	11	7	62
1888 to 1892.....	159	79	50	49	33	68
1893 to 1897.....	290	138	48	95	67	70
1898 to 1902.....	444	188	42	164	118	72
1903 to 1907.....	609	298	49	223	123	55
	1,545	718	46	542	348	64

An interesting result is obtained by combining the figures of the Sceptre Life and the Scottish Temperance for a twenty-five-year period. It shows that during that period the two companies had a loss

expectation of 3,621 lives in their general section and 3,592 in their abstainers' section, with actual losses of 2,801 in their general sections and 1,804 in their abstainers' sections. That is, they expected 29 more losses in their general sections than in their abstainers', and had actually 997 more losses.

In the ten-year period, from September 30, 1900, to September 30, 1910, the mortality experience of the Australasian Temperance & General Life Insurance Society was as follows:

	Expected Claims.	Actual Claims.	Percentage of Actual to Expected.	General Per- centage of Abstainers.
Temperance section.....	\$591,569	\$278,497	47.1
General sec- tion.....	303,322	229,572	75.7	160.7

In the first five years of the ten-year period under consideration the percentages of actual to expected losses were 50.1 in the abstainers' section, and 81.4 in the general section, while in the last five years the percentages were 44.8 and 70.8 respectively.

The Manufacturers Life, with which I am connected officially, has shown a remarkably low death rate among total abstainers. The experience of the Manufacturers Life in its Canadian business for the last nine years, 1902 to 1910 inclusive, is shown in the following table.

This experience is that of the last nine of the first twenty-five years of the company's business. It was even more favorable to total abstainers in the earlier years.

What is more significant than anything else is the fact that a critical examination of the experience

Year.	PERCENTAGE OF EXPECTED MORTALITY.		
	Abstainers' Section.	General Section.	General Section Percentage of Abstainers' Section.
1902.....	36.9	67.5	184.4
1903.....	37.4	71.1	190.2
1904.....	42.5	61.9	145.7
1905.....	37.3	78.1	200.8
1906.....	35.9	56.6	160.0
1907.....	39.0	72.7	186.4
1908.....	38.2	82.1	214.9
1909.....	34.6	51.1	147.5
1910.....	30.3	50.7	167.4

Abstainers' average..... 36.90 per cent.
 General average..... 65.75 per cent.
 General percentage of abstainers..... 178.89 per cent.

of every company separately classifying its risks reveals the fact that in every year and at all ages, wherever a considerable number of lives are under observation, mortality is much lower among abstainers than it is among non-abstainers. This is being recognized more and more by the British companies, several of which, while they do not maintain abstainers' sections, guarantee a permanently lower rate of premium.

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